

# Low VF SMD Schottky Bridge Rectifiers

**Comchip**  
SMD Diode Specialist

## CDBHD240-G Thru. CDBHD2100-G

Reverse Voltage: 40 to 100V

Forward Current: 2.0A

RoHS Device

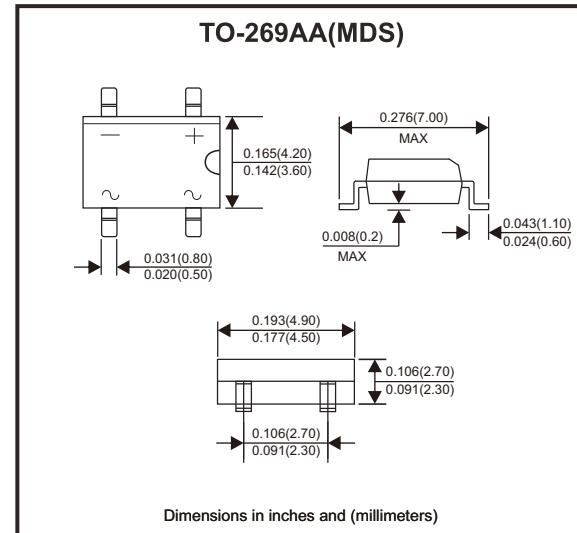


### Features

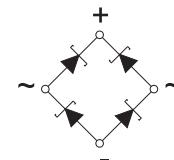
- Schottky barrier chips in TO-269AA bridge
- Metal semiconductor junction with guard ring.
- Silicon epitaxial planar chips.
- Very low forward drop down voltage.
- For use in low voltage, high efficiency inverters, free wheeling, and polarity protection applications.

### Mechanical data

- Case: Molded plastic, TO-269AA(MDS).
- Epoxy: UL94-V0 rated flame retardant.
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026.
- Polarity: Marked on body.
- Mounting position: Any.



### Circuit Diagram



### Maximum Ratings and Electrical Characteristics (at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	CDBHD 240-G	CDBHD 260-G	CDBHD 2100-G	Unit
Repetitive peak reverse voltage		V <sub>RRM</sub>	40	60	100	V
Continuous reverse voltage		V <sub>R</sub>	40	60	100	V
RMS voltage		V <sub>RMS</sub>	28	42	70	V
Peak forward surge current	8.3ms single half sine-wave (JEDEC method)	I <sub>FSM</sub>		50		A
Average forward rectified current	0.2x0.2"(5.0x5.0mm) copper pad, see Fig.1	I <sub>F(AV)</sub>		2		A
Forward voltage	I <sub>F</sub> = 2A per element	V <sub>F</sub>	0.50	0.70	0.85	V
Reverse current	V <sub>R</sub> = V <sub>RRM</sub> , T <sub>J</sub> = 25°C	I <sub>R</sub>		0.5		mA
	V <sub>R</sub> = V <sub>RRM</sub> , T <sub>J</sub> = 100°C	I <sub>R</sub>		20		
Typ. thermal resistance	Junction to ambient	R <sub>θJA</sub>		80		°C/W
	Junction to case	R <sub>θJC</sub>		30		
	Junction to lead	R <sub>θJL</sub>		20		
Typ. diode junction capacitance	f = 1MHz and applied 4V DC reverse voltage	C <sub>J</sub>		150		pF
Operating temperature range		T <sub>J</sub>	-55 to +125		-55 to +150	°C
Storage temperature range		T <sub>STG</sub>		-65 to +175		°C

REV:D

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## Rating and Characteristic Curves (CDBHD240-G Thru. CDBHD2100-G)

Fig.1 - Forward Current Derating Curve

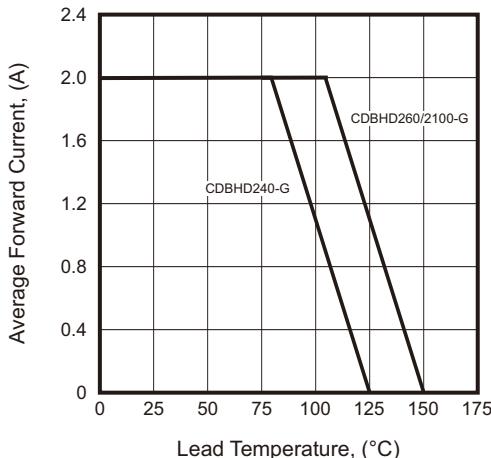


Fig.2 - Max. Non-Repetitive Peak Forward Surge Current

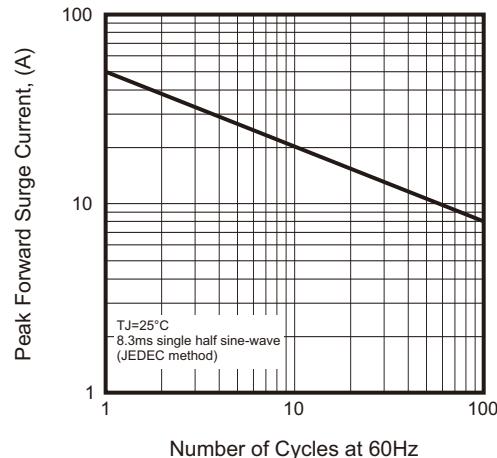


Fig.3 - Typical Instantaneous Forward Characteristics

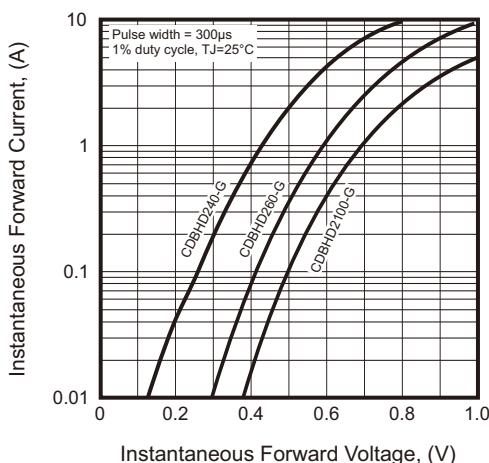


Fig.4A - Typical Reverse Characteristics

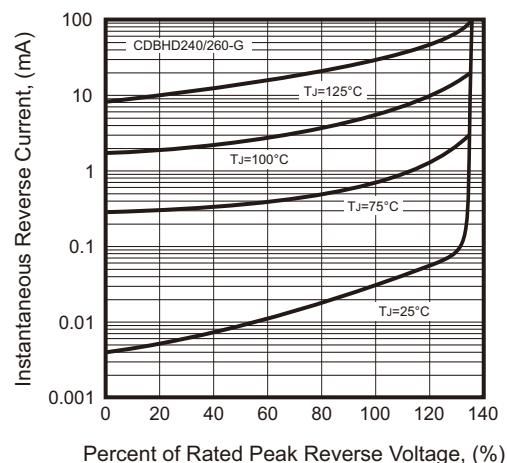


Fig.5 - Typical Junction Capacitance

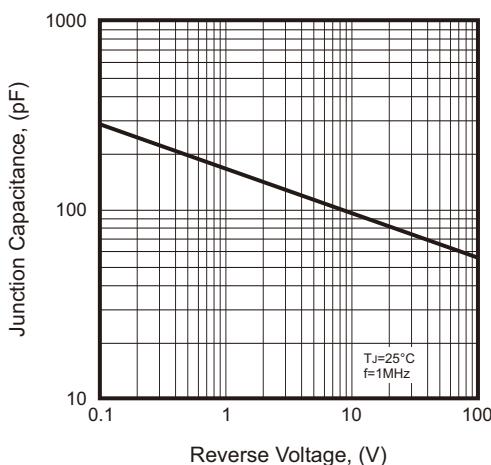
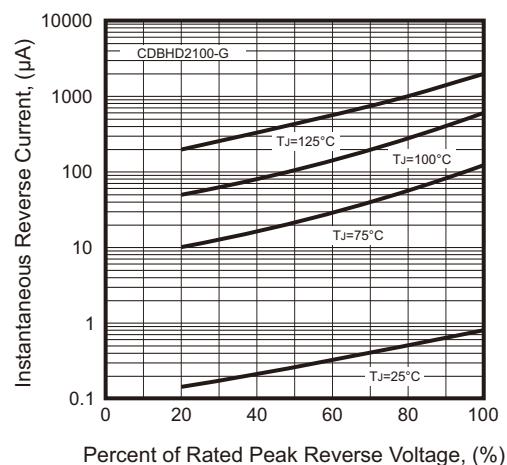
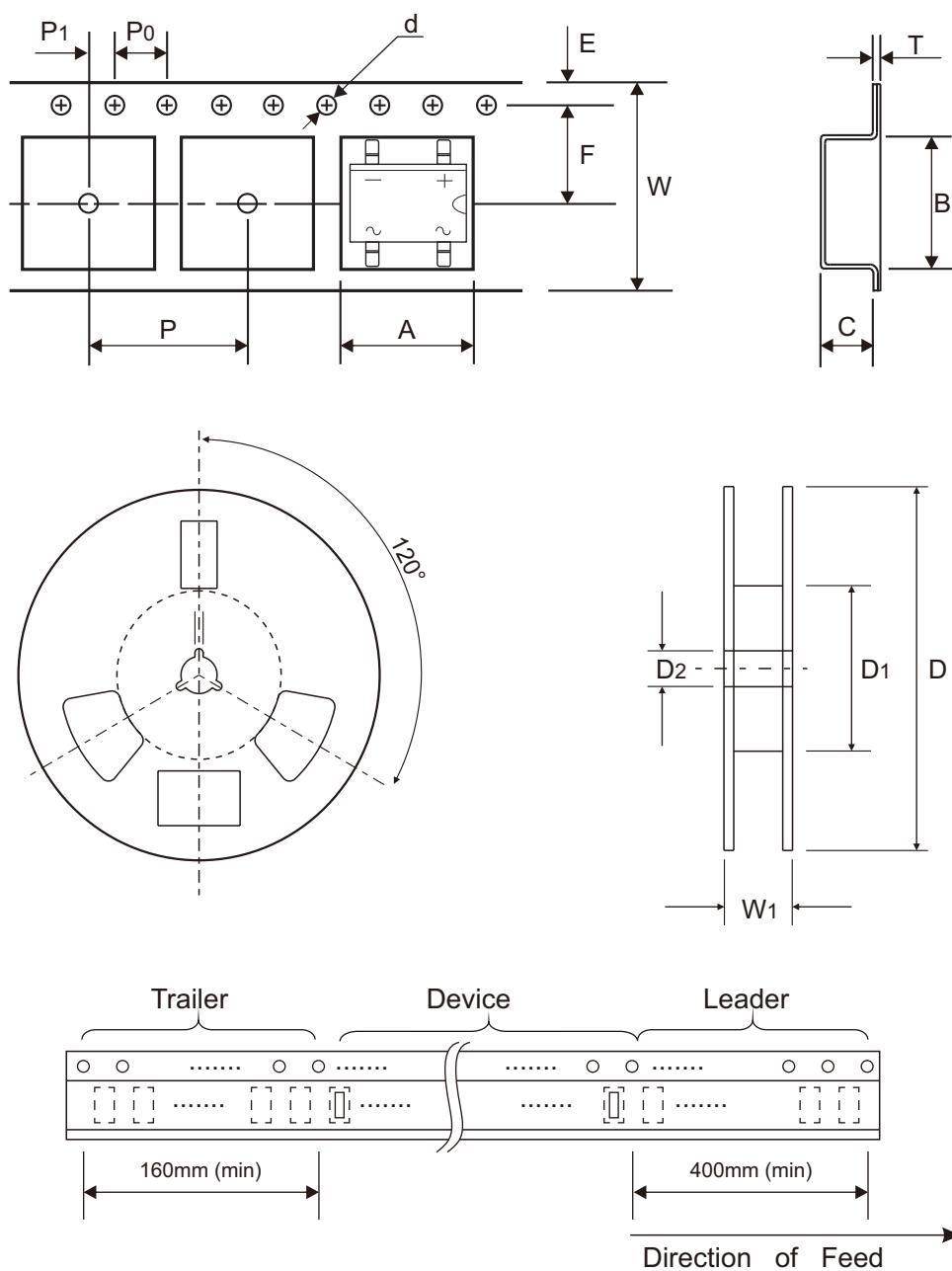


Fig.4B - Typical Reverse Characteristics



## Reel Taping Specification

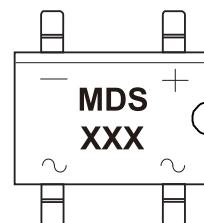


	SYMBOL	A	B	C	d	D	D1	D2
TO-269AA (MDS)	(mm)	$5.00 \pm 0.10$	$7.24 \pm 0.10$	$3.33 \pm 0.10$	$1.50 \pm 0.10$	$330 \pm 2.00$	50 Min.	$13.00 \pm 0.50$
	(inch)	$0.197 \pm 0.004$	$0.285 \pm 0.004$	$0.131 \pm 0.004$	$0.059 \pm 0.004$	$12.992 \pm 0.079$	1.969 Min.	$0.512 \pm 0.020$

	SYMBOL	E	F	P	P0	P1	T	W	W1
TO-269AA (MDS)	(mm)	$1.75 \pm 0.10$	$5.50 \pm 0.10$	$8.00 \pm 0.10$	$4.00 \pm 0.10$	$2.00 \pm 0.10$	$0.30 \pm 0.10$	$12.00 \pm 0.30$	$18.00 \pm 1.00$
	(inch)	$0.069 \pm 0.004$	$0.217 \pm 0.004$	$0.315 \pm 0.004$	$0.157 \pm 0.004$	$0.079 \pm 0.004$	$0.012 \pm 0.004$	$0.472 \pm 0.012$	$0.709 \pm 0.039$

## Marking Code

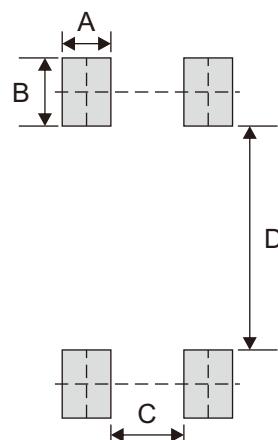
Part Number	Marking Code
CDBHD240-G	MDS24
CDBHD260-G	MDS26
CDBHD2100-G	MDS210



XX / XXX = Product type marking code

## Suggested P.C.B. PAD Layout

SIZE	TO-269AA(MDS)	
	(mm)	(inch)
A	1.00	0.039
B	1.40	0.055
C	1.50	0.059
D	4.60	0.181



## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
TO-269AA(MDS)	2,500	13